

PATENT APPLICATION SERIAL NO. 08/709,930  
ATTORNEY DOCKET: 00287S-004820US  
BRIEF ON APPEAL

#33  
193

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Philip S. Green  
Serial No. : 08/709,930  
Filed : September 9, 1996  
Title : SURGICAL SYSTEM

Art Unit : 2786  
Examiner : S. Garland

BOX: AF  
Assistant Commissioner for Patents  
Washington, D.C. 20231



APPEAL BRIEF

Sir:

Applicant herewith files this Brief on Appeal, in triplicate, thereby perfecting the Notice of Appeal originally filed on August 10, 2000.

The Asst. Commissioner of Patents is hereby authorized to charge Applicant's Deposit Account no. 20-1430 for Appeal Brief fee of \$300. Please apply any other charges or credits to Deposit Account No. 20-1430.

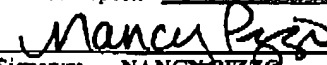
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CERTIFICATE OF FACSIMILE

TO: Examiner STEVE GARLAND at  
FAX NO.: 703) 305-3718

I hereby certify that this correspondence is being FAXED and is addressed to the EXAMINER GARLAND at BOX: AF, Assistant Commissioner for Patents, Washington, D.C. 20231.

Date of Deposit: SEPTEMBER 12, 2000

  
Signature: NANCY PIZZO

The specific items required by 37 C.F.R. § 1.192(c) to be contained in Applicant's brief follow:

REAL PARTY IN INTEREST

The present '930 application is assigned to SRI International, of Menlo Park, California. Intuitive Surgical, Inc., of Mountain View, California, is the exclusive licensee of the '930 application. Therefore, SRI International and Intuitive Surgical, Inc. are the real parties in interest.

RELATED APPEALS AND INTERFERENCES

In addition to seeking an interference with U.S. Patent No. 5,815,640, the subject of this appeal, Applicant also has sought interferences with U.S. Patent Nos. 5,762,458; 5,878,193; 5,855,583; and 5,907,664. All five of these patents issued to Wang et al. and are presently assigned to Computer Motion, Inc. ("CMI") of Goleta, California. As a result of Applicant's requests, the Examiner has now agreed to recommend to the Board that interferences be immediately declared between the present '930 application and three of the four other

patents, namely U.S. Patent Nos. 5,878,193; 5,855,583; and 5,907,664.<sup>1</sup>

Applicant first requested interferences with these five patents in May, June and July 1999. Given it is now *more than a year* after Applicant filed all of his requests for interference, and also given that all of the CMI patents mentioned in this paper are now involved in patent infringement litigation filed by CMI against Applicant's exclusive licensee, Intuitive Surgical (as described *infra*), Applicant respectfully but urgently requests that this Appeal, and the recommended interferences, be conducted with "special dispatch," per 37 C.F.R. § 1.607(b).

#### STATUS OF CLAIMS

Claims 115, 118-126, 138, 139, 141 and 144 are pending. Claims 115, 119-122 and 144 have been allowed. Claims 118, 123-126, 138, 141 are rejected. Claim 139 is objected to. Claims 138 and 141 are the subjects of this appeal. A copy of the pending claims is attached as Appendix B.

#### STATUS OF AMENDMENTS

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<sup>1</sup> See Interview Summary mailed June 28, 2000, attached as Appendix A; and Office Action of July 19, 2000, page 2 (stating that "Applicant's Summary of the interview . . . filed 6/28/00 is an accurate reflection of what was discussed and is substantially correct [with the exception of a subsequent removal of a rejection of claim 139.]")

No amendments have been filed after the final rejection of the Office Action of July 19, 2000.

SUMMARY OF INVENTION

The present invention relates to an apparatus and method for remotely monitoring and controlling movement of one or more end effectors, such as surgical instruments. The inventive system can substantially add to an operator's sense of presence at the remote manipulator site.

Referring, e.g., to Fig. 7, an embodiment of the present invention disclosed in the present application teaches a display device coupled to a surgical system by which movement of one or more end effectors can be monitored and controlled. The system includes end effectors controlled by a movement mechanism, such as a robotic arm linkage, that receives movement commands from a control computer. The control computer receives input signals from the operator and provides output signals to the movement mechanism.

The display device can provide the operator with a 3-D, or stereographic, field of vision by providing alternating displays of right and left images fed from two remote, off-set cameras located at the work site. Page 7, line 5 to page 8, line 4; Fig. 3. The display device, illustratively, can also provide the operator with a strong sense of directly controlling

the end effectors by locating the image viewed by the operator adjacent the hand-operated controller means. See, e.g., Fig. 2. The display device can also be configured to provide work site magnification. The end result is the replication of the visual experience that a miniature observer would have were he closely adjacent the actual work site. Page 11, line 14 to page 12, line 35.

Referring, e.g., to Fig. 1, the invention discloses controller means 70 located beneath the table top 68. The operator manipulates these controller means to control movement of the right and left end effectors. Page 8, lines 22-25; Fig. 1. The operator-controlled controller means provide, for example, input to the control computer through a variety of hand-grip and control brace-type hand structures. The input controller means may also be enabled to provide force feedback to the operator. Page 21, line 15 to page 22, line 14. Illustratively, a servomechanism and interfaced computer controller can be used to re-map the operator's hand motions at the input controller into the coordinate system of the end effectors, thereby moving the surgical instrument in the direction desired by the operator. Page 6, lines 9-24; page 21, lines 1-5.

ISSUE FOR REVIEW

There is only one issue for review: Was the Examiner's rejection of Applicant's claims 138 and 141 under 35 U.S.C. § 135(b) proper, where Applicant's claims were (i) copied verbatim from claims 8 and 19 of U.S. Patent No. 5,815,640, and (ii) submitted within one year of issuance of U.S. Patent No. 5,815,640?

GROUPING OF CLAIMS

Claims 138 and 141 stand or fall together. Claim 141 is dependent on claim 138.

ARGUMENT

A. INTRODUCTION

Applicant's claims 138 and 141 were copied verbatim from claims 8 and 19 of U.S. Patent No. 5,814,640 ("the '640 patent"), and Applicant requested that an interference be declared between his application and the '640 patent. There is no dispute that Applicant's claims 138 and 141 were filed within the statutory time limit of one year from the date of issuance of the '640 patent. There is also no dispute that Applicant's claims 138 and 141 claim the identical subject matter as claims 8 and 19 of the '640 patent. Finally, there is no dispute that

the present patent application supports all of the claim limitations of the claims copied from the '640 patent. Nevertheless, rather than taking the next natural step and recommending that an interference be declared between the '640 patent and the present application, the Examiner finally rejected claims 138 and 141 under 35 U.S.C. § 135(b)<sup>2</sup> as claiming substantially the same subject matter as claimed in another patent, U.S. Patent No. 5,524,180 ("the '180 patent").

The issue before the Board is whether, once Applicant has complied with the requirements of section 135(b) for one patent (the '640 patent) that is the subject of the request for interference, the Examiner can properly reject Applicant's claims under section 135(b) based on the earlier issuance of another patent (the '180 patent). Applicant submits the answer to this issue must be no. Given that Applicant copied the claims of an issued patent within one year of issuance of that patent, the Examiner's rejection of Applicant's claims under section 135(b) in view of another patent was improper. Thus, Applicant respectfully requests that the Board reverse the

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<sup>2</sup> 35 U.S.C. § 135(b) provides: "A claim which is the same as, or for the same or substantially the same subject matter as, a claim of an issued patent may not be made in any application unless such a claim is made prior to one year from the date on which the patent was granted."

Examiner's rejection and immediately declare an interference between the present application and the '640 patent.

**B. FACTUAL BACKGROUND**

The '640 patent issued on September 29, 1998, claiming a priority filing date of August 10, 1992.<sup>3</sup> On July 14, 1999, less than ten months after the '640 patent issued, Applicant claimed the identical subject matter as claimed by claims 8 and 19 of the '640 patent by adding claims numbered 138 and 141 to his '930 application and requested that an interference be declared with the '640 patent.<sup>4</sup> See Third Supplementary Preliminary Amendment and Request for Interference with U.S. Patent No. 5,815,640 under 37 C.F.R. § 1.607, filed July 14, 1999 for the '930 application. Applicant's '930 application claims a priority filing date of January 21, 1992 and, thus, could not properly be rejected under either 35 U.S.C. §§ 102 or 103 over either of the '640 or '180 patents.

<sup>3</sup> U.S. Pat. No. 5,815,640 issued from U.S. Patent Application Ser. No. 08/903,914, filed on July 31, 1997.

<sup>4</sup> Applicant also claimed the identical subject matter as claimed by claims 13 and 14 of the '640 patent by adding claims numbered 139 and 140 to his '930 application. Claim 140 was subsequently cancelled, and claim 139, after minor amendment, presently stands only "objected to" as depending from non-allowed independent claim 138. In his July 19, 2000 Final Office Action, the Examiner withdrew his earlier rejection of claim 139 under 35 U.S.C. § 135(b).

Rather than declaring an interference between the present application and the '640 Patent, however, even after concluding that Applicant's specification supported all of the limitations of claims 138 and 141, the Examiner rejected these claims under 35 U.S.C. § 135(b), and then made that rejection final. See Office Action of February 11, 2000; Office Action of July 19, 2000. In explaining his rejection, the Examiner asserted that claims 138 and 141 were not made prior to one year from the date of issuance of a *different* patent, the '180 patent,<sup>5</sup> which was not subject to Applicant's request for interference. See July 19, 2000 Final Office Action at ¶2. The Examiner concluded:

U.S. Patent 5,524,180 to Wang et al. claims substantially the same subject matter as is now being claimed in claims 138 and 141. The 5,524,180 patent issued on June 4, 1996 more than a year before [the] instant claims were first presented in the amendment of 7/14/99. The claims of U.S. Patent 5,524,180 bars [sic] the claim to substantially the same subject matter under 35 U.S.C. 135(b). See In re McGrew 43 USPQ2d 1633 (Federal Circuit 1997) which is particularly relevant.

*Id.*

The '180 patent, on which the Examiner relied for his section 135(b) rejection, is the grandparent application of the '640 patent. The '640 patent issued from a continuation of a

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<sup>5</sup> U.S. Pat. No. 5,524,180 issued on June 4, 1996, from U.S. Patent

continuation of the '180 patent, and both patents claim rights to the same priority filing of August 10, 1992.

The Examiner went on to explain the insubstantial differences between Applicant's claims and the issued claims of the '180 patent:<sup>6</sup>

Comparing instant claim 138 to claim 15 of the 5,524,180 patent, the claims are almost identical....

The only differences are that patent claim 15 states that the surgical instrument has a tip and that the motion is "incremental movement" instead of the more general "movement" of instant claim 138.

Claim 15 of the ['180] patent is the same or substantially the same as newly added claim 138 of the instant application [and thus claim 8 of the '640 patent], since a surgical instrument inherently has a tip, and the movement as claimed in new claim 138 is an incremental movement, since it is based on an original position and a directional movement from that original position.

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Application Ser. No. 08/072,982, filed on June 3, 1993.

<sup>6</sup> Claim 8 of the '640 patent differs from Claim 15 of the '180 patent in that claim 8 deletes nine words from claim 15. For ease of reference, claim 15 of the '180 patent is reprinted below. The words deleted from claim 15 to form claim 8 of the '640 patent are indicated in bold and by brackets:

15. A system that allows a user to control a movement of a surgical instrument [that has a tip], wherein the surgical instrument is coupled to a display device that displays an object, comprising: a mechanism that moves the surgical instrument, said mechanism having an original position;

an input device that receives a command to move the surgical instrument [tip] in a desired direction relative to the object displayed by the display device; and, a controller that receives said command to move the surgical instrument in the desired direction, computes an [incremental] movement of said mechanism based on said command and the original position of said mechanism so that the surgical instrument [tip] moves in the desired direction, and provides output signals to said mechanism to move said mechanism said [incremental] movement to move the surgical instrument [tip] in the desired direction commanded by the user.

The additional limitations recited in instant claim 141 [and thus claim 19 of the '640 patent] are virtually identical to the additional limitations of claim 26 of patent 5,524,180, the only differences are the use of the words controller and input device in the instant application instead of the words "control means" and "input means" in the patent claim.

Id. at 8.

The Examiner entered a final rejection of claims 138 and 141 on July 19, 2000, from which Applicant appeals. See July 19, 2000 Office Action at pages 2-4.

**C. REJECTION OF APPLICANT'S CLAIMS PURSUANT TO § 135(b) IS IMPROPER**

It is axiomatic that if an application of one party and an issued patent of another party claim the same invention, and the application's claims are not rejectable over the patent or other prior art or under section 112, then the patent and application will be placed in an interference to determine which has priority and who is entitled to a patent on the common subject matter of the invention.<sup>7</sup> If the Applicant prevails in the interference, the issued interfering patent claims are cancelled by operation of law. See 35 U.S.C. § 135(a). If the patentee

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<sup>7</sup> 35 U.S.C. § 135(a) provides in relevant part that "[w]henver an application is made for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with any unexpired patent, he shall give notice thereof to the applicants, or applicant and patentee, as the case may be. The question of priority of invention shall be determined by a board of patent interferences...."

prevails, the decision will constitute a final refusal of applicant's interfering claims by the Patent Office. *Id.*

The right to trigger an interference is not absolute, however. Section 135(b) was intended to be a statute of repose (a statute of limitations) on interferences, so that a patentee might be more secure in his property right beginning one year after issuance of his patent. *See Corbett v. Chisholm*, 568 F.2d 759, 765 (CCPA 1977). In the instant case, section 135(b) does not provide any security to the owner of the '640 patent *vis à vis* Applicant's claims because Applicant first pursued claims 138 and 141 less than one year after the issuance of the '640 patent.

As a statute of limitations, section 135(b) grants an affirmative right to an applicant to request an interference where the request is timely asserted. To be timely, the assertion of the interfering claims must be made within one year of a triggering event. That triggering event, according to the very language of the statute, is issuance of the patent with which the applicant seeks interference. Applicant in this case unquestionably asserted his claims and sought interference with the '640 patent in a timely manner.

A plain reading of section 135(b) makes clear that an interference is contemplated with only one patent: the patent

that tolls the statute. Thus, "[a] claim which is the same as . . . a claim of an issued patent may not be made in any application unless such claim is made prior to one year from the date on which the patent was granted." 35 U.S.C.

§135(b) (emphasis added.) Accordingly, section 135(b) cannot support the Examiner's rejection because of three undeniable facts: (1) Applicant seeks interference with the '640 patent; (2) the '640 patent's issuance triggered the statutory one-year clock for copying claims from that patent; and (3) Applicant copied the '640 patent's claims within one year of its issuance. That is all the statute requires.

Rather than looking directly to the language of the statute, the Examiner relies on case law applying section 135(b) to a readily distinguishable set of facts. In *In re McGrew*, 120 F.3d 1236, 43 USPQ2d 1632 (Fed. Cir. 1997), the only authority cited by the Examiner, an undisputed period of three years passed between issuance of the patent in question and McGrew's filing of claims covering substantially the same subject matter as the claims of the issued patent. *Id.* at 1236. In response to McGrew's various arguments, the Federal Circuit found the Examiner's substantive rejection under section 135(b) to be proper, and so affirmed. In its decision, the Federal Circuit explained that since the claims in question clearly were filed

more than a year after issuance of any patent containing corresponding claims, the statute of repose of section 135(b) required the Examiner's ruling. *Id.* at 1238. In *McGrew*, then, unlike the present case, no relevant patent issued within a year of the filing date of Applicant's claims.

Unlike *McGrew*, Applicant copied the claims of, and requested an interference with, the '640 patent within one year of the issuance of that patent. That fact alone renders *In re McGrew*, the Examiner's only cited authority, inapposite.

This case obviously includes peculiar circumstances in which two issued, related patents comprise claims that appear to be patentably indistinct. See footnote 6 and accompanying discussion, *supra*. Under these circumstances, the existence of the first patentably-indistinct patent (the '180 patent) obviously colored the Examiner's view of Applicant's right to copy claims from the later-issued '640 patent. Applicant respectfully suggests, however, that whether a patent other than the later-issued patent claims the same or substantially the same subject matter as Applicant's claims should be of no moment to the section 135(b) analysis for claims copied verbatim from that later-issued ('640) patent. In short, if the Patent Office sees fit to issue a patent on subject matter that the patentee voluntarily put back into play through its continuation

practice, then that patent must be deemed to be patentably distinct from all other patents for the purpose of measuring the section 135(b) one-year clock. If the rules of issuing and challenging issued patents are permitted to change mid-stream, such that an issued patent can no longer be challenged even if the claims are copied within one year of issuance, the Board inevitably will be denied its right to serve the public interest by addressing (in an efficient and sensible manner in an interference context) patents that perhaps should never have issued in the first place and that, but for two Patent Examiner's implicit disagreement,<sup>a</sup> would be before the Board in interference. The Board should not be denied that right when the plain language of section 135(b) has been satisfied vis à vis the later-issued patent.

} then immediate

In summary, Applicant has plainly complied with the requirements of section 135(b) in copying claims from, and seeking an interference with, the '640 patent. Accordingly, the Examiner's reliance upon section 135(b), as support for a substantive rejection, is misplaced and must be reversed.

<sup>a</sup> The implicit disagreement exists between (a) the first Examiner who is deemed to have concluded that the '640 patent should issue despite the '180 patent's existence, and (b) the second Examiner who is faced with claims copied from the '640 patent, but who concludes that the '640 patent's claims are patentably indistinct from the '180 patent.

**D. REPETITIOUS CONTINUATION PATENT STRATEGY SHOULD NOT BE ENCOURAGED**

Given the budgetary constraints imposed on the Patent Office, if the Board were to immunize from challenge under §135(b) subsequently filed continuations covering similar subject matter as, but issuing more than a year after, an earlier patent, there would clearly be less danger to a patent holder in filing and prosecuting substantially the same claims time after time. As a matter of policy, the Board should not now encourage the prosecution of nearly identical claims (such as those of the '180 and '640 patents) - as the present patentee has clearly done - by extending the patentee's protection under section 135(b) to cover later-issued duplicate claims. See, e.g., *Ex Parte Stephen P. McGrew*, 1995 Pat. App. LEXIS 8 (Bd. Pat. Apps., 1995) ("We [the Board] consider this solution to be unacceptable. For the PTO to knowingly burden the public with two patents to the same invention would violate the 'one patent for one invention' intention of the statute.")

Under the Examiner's analysis, the prosecution of duplicate claims is not only encouraged, but the later-issued duplicate claims are insulated from the threat of interference from their very first date of issuance - a far greater protection than contemplated by section 135(b). Such an

**E. PENDING LITIGATION AND THE RECOMMENDATION OF INTERFERENCES INVOLVING SEVERAL PATENTS RELATED TO THE '640 PATENT PROVIDE ADDITIONAL BASES FOR REVERSING THE SECTION 135(b) REJECTION**

Denying the Board the opportunity to rule on an interference between the '640 patent and the present '930 application could work an unnecessary and substantial injustice on Applicant's exclusive licensee, Intuitive Surgical, Inc. To recap, the Examiner has already agreed to recommend that the Commissioner declare interferences between multiple claims of Applicant's '930 application and U.S. Patent Nos. 5,907,664, 5,855,583 and 5,878,193, which like the '640 and '180 patents issued to Wang et al. and are assigned to CMI.<sup>9</sup> Yet these five patents are already presently the subject of patent infringement litigation in the U.S. District Court for the Central District of California, *Computer Motion, Inc. v. Intuitive Surgical, Inc.*, Case No. CV-00-4988-CBM (RCx). In May 2000, in an apparent attempt to try to procure a judgment of liability before the PTO announces its views on the validity and/or priority of inventorship of CMI's patents, and in the heart of Intuitive Surgical's Initial Public Offering ("IPO"), CMI filed its lawsuit against Intuitive after learning that Intuitive was challenging five of its patents in the Patent Office.

To deny Applicant his statutory right "to secure the just, speedy, and inexpensive determination" of his rights pursuant to 37 C.F.R. § 1:601, which Applicant requested over a year ago beginning in May 1999, and instead to force him unnecessarily to face the expense, delay and potential contradictory judgments which may result from concurrent interference proceedings and district court patent litigation, is contrary to both the letter and spirit of the interference statutes. Applicant respectfully submits that because the issues of primacy of invention are related, it would conserve the government's resources, protect Applicant from undue burden and simply make sense for the Board to consider the '640 patent at the same time it determines the related interference issues.

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<sup>9</sup> Two of these patents, the '193 and the '664, are even in the same family of patents as the '640 patent and the '180 patent.

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**F. CONCLUSION**

Applicant has fulfilled all the 35 U.S.C. § 135(b) and 37 C.F.R. § 1.607(a) requirements for provoking an interference with the '640 patent. Thus, for the reasons explained above, reversal of the Examiner's rejection is respectfully requested.

Respectfully submitted,



Date: September 12, 2000

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Attachments: Appendix A - Interview Summary  
Appendix B - Claims on Appeal

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I hereby certify that this correspondence is being sent by  
facsimile transmission to: (703) 305-3718

Examiner STEVE GARLAND

On JUNE 28, 2000

TOWNSEND and TOWNSEND and CREW LLP

By: Nancy A. Pizzo

NANCY A. PIZZO

PATENT

Attorney Docket No.: 0287S-004820US  
Client Reference No.: P-3026

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

PHILIP S. GREEN

Application No.: 08/709,930

Filed: September 9, 1996

For: SURGICAL SYSTEM

Examiner: GARLAND, Steven

Art Unit: 2786

## INTERVIEW SUMMARY

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please enter the following Interview Summary in the record for this application:

Applicant's representative thanks the Examiner and the Examiner's supervisor, William Grant, for the courtesy shown in a series of telephone conversations from the 12<sup>th</sup> to the 14<sup>th</sup> of June, 2000, and for an in-person interview conducted on June 22, 2000 at the USPTO. Applicant's representative discussed claims 113, 115, 118-122, 138, and 144. Agreement was reached that claims 115, 119-122, and 144 would be allowable to Applicant, but correspond to claims of issued U.S. Patent Nos. 5,878,193; 5,855,583; and 5,907,664. Hence, Applicant is entitled to interferences with each of these three patents.

Regarding claims 138, 139, and 141, Applicant understands that the Examiner intends to maintain the current rejection of these claims under 35 U.S.C. §135(b). With the sole exception of this §135(b) rejection, the Examiner has indicated that these claims are allowable to Applicant, but correspond to claims of U.S. Patent No. 5,815,640. Hence, if the

APPENDIX A

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PATENT

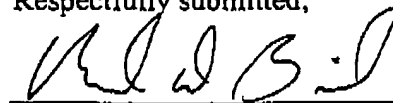
rejection under §135(b) is overcome, the Examiner has agreed that Applicant would be entitled to an interference with the '640 patent.

Applicant and the Examiner have agreed to seek concurrent Appeal and Interference proceedings for this case. As suggested by the Examiner (to allow concurrent proceedings to begin in a timely manner) Applicant has canceled several claims from this application, and Applicant will limit the appealed issues to the §135(b) rejections of claims 138, 139, and 141. Applicant reserves the right to address or appeal all other issues during and/or after the interference proceedings. Applicant gratefully acknowledges that the Examiner has agreed to prepare and send to the Board an Interference Initial Memorandum and Statement under 37 C.F.R. §1.609(b) for each of the '193, '583, and '664 patents without delay (after mailing of the second Office Action for this case, and while Applicant pursues the Appeal of the §135(b) issue).

Finally, regarding canceled claim 145, Applicant acknowledges that the Examiner has indicated that this claim is allowable to Applicant and does not correspond to claims of the patents with which interferences have been requested. As suggested by the Examiner, Applicant will file a continuation application to allow a patent to issue with this claim.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



Mark D. Barrish  
Reg. No. 36,443

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APPENDIX B

115. (As Filed) A method for allowing a user to remotely control a movement of a surgical instrument having a tip, the method comprising the steps:

- a) establishing an original position of the surgical instrument tip;
- b) inputting a command provided by a user to move the surgical instrument in a desired direction relative to an object displayed on a display device;
- c) computing an incremental movement of the surgical instrument based on the command provided by the user and on the original position of the surgical instrument;
- d) moving the surgical instrument in the desired direction so that the surgical instrument tip always moves in a direction commanded by the user.

118. A medical robotic system, comprising:

- a robotic arm;
- a coupler that pivotally attaches to the arm;
- an endoscopic surgical instrument that is held by said coupler; and
- a controller having a handle, the controller in electrical communication with the robotic arm; and
- wherein movement at the controller produces a proportional movement of the robotic arm and surgical instrument.

119. A medical robotic system, comprising:

- a robotic arm;
- a coupler that pivotally attaches to the arm;
- an endoscopic surgical instrument that is held by said coupler; and a controller having a handle, the controller in electrical communication with the robotic arm; and

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wherein movement at the controller produces a proportional movement of the robotic arm and surgical instrument, and wherein said endoscopic surgical instrument is an articulable endoscopic surgical instrument.

120. A medical robotic system, comprising:  
a robotic arm;  
a coupler that pivotally attaches to the arm;  
an articulable endoscopic surgical instrument that is held by said coupler; and

a controller having a handle, the controller in electrical communication with the robotic arm; and

wherein movement at the controller produces a proportional movement of the robotic arm and the articulable surgical instrument, and wherein the articulable surgical instrument comprises a base, a pivot linkage, and a distal end.

121. The system of claim 120 wherein a movement at the controller results in corresponding movement of the distal end of the articulable surgical instrument relative to the base of the articulable surgical instrument.

122. The system of claim 121 wherein a cauterizer is attached at the distal end of the articulable surgical instrument.

123. A method for operating a surgical robotic system for performing a surgical procedure on a patient, the method comprising:

1) providing a first articulate arm, a controller and an input device which receives input commands, the first articulate arm in electrical communication with the controller and the controller in electrical communication with the input device;

2) cutting at least one incision into the patient;

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- 3) attaching a surgical instrument to the first articulate arm;
- 4) inserting said surgical instrument into the patient through the at least one incision;
- 5) generating input commands to move said surgical instrument in accordance with the procedure being performed wherein said robotic arm moves said surgical instrument in accordance with the input commands; and
- 6) removing the surgical instrument from the patient.

124. The method of claim 123 wherein said surgical instrument is a grasper.

125. The method of claim 123 wherein the surgical instrument is a cauterizer.

126. The method of claim 123 wherein the surgical instrument is a cutting blade.

138. A system that allows a user to control a movement of a surgical instrument, wherein the surgical instrument is coupled to a display device that displays an object, comprising:

a mechanism that moves the surgical instrument, said mechanism having an original position;

an input device that receives a command to move the surgical instrument in a desired direction relative to the object displayed by the display device; and,

a controller that receives said command to move the surgical instrument in the desired direction, computes a movement of said mechanism based on said command and the original position of said mechanism so that the surgical instrument moves in the desired direction, and provides output signals to said mechanism to move said

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mechanism said computed movement to move the surgical instrument in the desired direction commanded by the user.

139. The system as recited in claim 138, wherein said mechanism includes a first linkage arm coupled to the surgical instrument and a first actuator which can rotate said first linkage arm and the surgical instrument in a plane perpendicular to a first axis, said first actuator being coupled to a linear actuator which can translate said first linkage arm along an axis parallel with the first axis.

141. The system as recited in claim 138, wherein said controller is a computer which receives input signals from said input device and provides output signals to said controller to move the position of the surgical instrument.

144. A system for allowing a surgeon to control a surgical instrument that is inserted through an incision of a patient, wherein the incision defines a pivot point, comprising:

an articulate arm having an end effector for holding the surgical instrument, an active joint for moving said end effector, and an actuator for spinning the surgical instrument;

a first input device for receiving an input command from the surgeon; and

a controller for receiving said input command, for computing a movement of said articulate arm based on said input command, for providing an output command to actuate said active joint and said actuator, and for moving the surgical instrument about the pivot point.

inequitable result has the additional consequence of barring the Board from redressing double patenting issues, which were a primary concern of the McGrew Court.

The Board should be provided the opportunity to address the priority of inventorship of the '640 patent in the requested Interference. As often happens, the Board's determination in the Interference may have implications regarding the validity of other patents as well, including the '180 patent. Such validity issues regarding these other patents may properly be addressed in the Interference itself, in a re-examination after the Interference is concluded, and/or in a court having the benefit of an Interference Decision. Yet such validity issues regarding these other patents (and priority under the Interference itself) are removed from the purview of the Board under the Examiner's interpretation of section 135(b).

In summary, given the lack of authority to support the Examiner's unilateral view about the later-issued patent, it is respectfully submitted that the Board, not the Examiner, should consider whether the later-issued patent should remain in effect. Under the peculiar circumstances of the present case, the Board should not be denied the ability to entertain issues regarding the '640 patent.